

ABSTRACT OF THE DISCLOSURE

An apparatus for processing wafers one at a time. The apparatus has a vacuum chamber 1 into which wafers are loaded through a pair of loadlocks 3, 4 which are spaced one above the other. A robot within the vacuum chamber 1 has a pair of gripper arms 22, 29 which are moveable along and rotatable about a vertical axis 23 so as to be moveable between the loadlocks 3, 4 and a wafer processing position. Each of the loadlocks 3, 4 has an enlarged valve 113, 125 on the vacuum chamber side to allow rotation of the gripper arms 22, 29 in and out of the loadlocks 3, 4.